

Some facts about wind energy

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Following recent articles regarding wind power and how much each job costs, RenewableUK, the trade association for the wind, wave and tidal sector, with nearly 600 corporate members, has put together a few facts on wind energy. We are happy to discuss any of these further with you.

Wind produces electricity

Any attempt to talk about “subsidies for jobs” is facile. Whilst the wind industry is responsible for significant investment and jobs, and has the potential to create 76,000 direct and indirect jobs by 2021¹, its primary purpose is to create energy. If you solely compare jobs and cost, then Sellafield, with decommissioning costs of £67.5bn and 9,000 people employed² has a subsidy of £7.5million per employee. Last year wind produced enough energy to meet electricity demand for a year for 4.5million homes.³ Wind power producers only receive money for the energy they produce. If no electricity comes from wind power the developers don’t receive any money, no matter how many people they employ.

Wind energy enjoys widespread public support

DECC’s quarterly public attitudes survey has consistently found public support for wind developments, with the last survey⁴ recording 69% of respondents stating that renewables provide economic benefits to the UK. Broken down by technologies, both onshore and offshore wind are supported by a large majority of the public and compare favourably with support for other large-scale renewable and low carbon technologies:

Technology	Onshore	Offshore	CCS	Nuclear	Biomass
Total Support	68%	76%	57%	40%	64%

In addition recent research from Comres found that if Local Election candidates backed wind they got a net gain of votes, with Parties that opposed wind nationally suffering a net loss of voters.⁵

Wind is not driving large rises in household energy bills

In 2011-12 (the last period for which numbers are available), support for wind cost households £11.67 or 3.2p per day, according to the latest figures from Ofgem⁶, with the total for the renewables obligation at £19.77. The wind portion of the bill represents less than 1% of the average dual fuel customer’s annual bill, as of December 2012. Over the same period, the cost of decommissioning nuclear power plants was 28p per household per day.

Questioned in the House of Commons on the impact of wind on fuel poverty, Secretary of State for Energy and Climate Change Rt Hon Edward Davey MP stated:

“what has really pushed people into fuel poverty has been gas prices, with global gas prices having increased significantly”... “analysis suggests that if we move to a decarbonised sector, this country and our consumers, people and firms will be less exposed to volatile international gas prices.”⁷

¹ <http://www.renewableuk.com/en/publications/reports.cfm/Working-for-a-Green-Britain-Volume-2>

² <http://www.bbc.co.uk/news/uk-england-cumbria-21298117>

³ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/170698/energy_trends_6_renewables.pdf

⁴ <https://www.gov.uk/government/publications/public-attitudes-tracking-survey-wave-5>

⁵ <http://www.renewableuk.com/en/news/press-releases.cfm/2013-05-01-local-election-candidates-gain-votes-by-backing-wind-farm-developments> <http://www.renewableuk.com/en/news/press-releases.cfm/2013-05-01-poll-suggests-voters-put-off-by-anti-wind-political-rhetoric-ahead-of-local-elections>

⁶ <http://www.renewableuk.com/en/news/press-releases.cfm/2013-03-22-fair-wind-for-renewables-as-new-figures-show-cost-of-wind-is-just-over-3p-a-day-per-household>

⁷ [Energy and Climate Change Oral Questions 14th March 2013](#)

This was recently echoed by Energy Minister Rt Hon Michael Fallon MP, who said:

“we all know that it has been rising gas prices that have been the main driver of increases to bills and that the costs of wind in an average household bill are relatively small.”

Indeed, research by the Committee on Climate Change⁸ found that energy bills doubled between 2004-11 and less than 7% of this increase was due to support for low-carbon energy: rising gas prices accounted for 85%, and the regulator Ofgem has warned of dangers of an overreliance on imported gas.⁹

Decreases have recently been made to the cost of supporting onshore wind, and the Offshore Wind Cost Reduction Task Force has demonstrated an ability to get to costs of £100MWh (Megawatt hours) by 2020,¹⁰ showing that costs are coming down.

Government schemes also exist for energy intensive industries to claim compensations to mitigate the costs of energy and climate change policy.¹¹

With the amount of domestic energy we can exploit from traditional sources decreasing, it's over-reliance on imported foreign fuels that would lead to real danger for British consumers and businesses.

Wind produces economic benefits

The wind industry was estimated to directly employ 12,242 people as of April 2012.¹² The industry also supports employment along the supply chain, such as in construction and transportation. Research commissioned by Government and industry in 2012 showed that the local economy benefitted by £100,000 for each Megawatt of installed capacity.¹³

Wind cuts carbon

According to the National Grid, between April 2011 and September 2012 electricity generated by wind farms reduced the requirement for electricity from other sources by 23,707 GWh (Gigawatt hours), resulting in an estimated 10.9 million tonnes less CO2 being emitted.¹⁴

It has been argued that because wind is variable, more carbon is emitted overall as the grid must rely on carbon-intensive coal and gas to cover any shortfall when the output from wind falls. National Grid found this effect reduced the 10.9m tonnes of carbon saved by wind by just 0.081%, or 8,800 tonnes. It is also untrue that wind turbines use more energy than they produce – the average onshore wind farm produces 20-25 times more energy during its operational life than was used to construct and install its turbines.

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⁸ <http://www.theccc.org.uk/publication/household-energy-bills/>

⁹ <http://www.guardian.co.uk/money/2013/feb/19/ofgem-higher-household-energy-bills>

¹⁰ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/66776/5584-offshore-wind-cost-reduction-task-force-report.pdf

¹¹ <http://news.bis.gov.uk/Press-Releases/Compensation-scheme-for-energy-intensive-businesses-68cd2.aspx>

¹² <http://www.renewableuk.com/en/publications/reports.cfm/SOI2012>

¹³ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/48359/5229-onshore-wind-direct--wider-economic-impacts.pdf

¹⁴ http://www.scottish.parliament.uk/S4_EconomyEnergyandTourismCommittee/NATIONAL_GRID.pdf

This article may also be of interest: <http://www.guardian.co.uk/environment/blog/2012/sep/26/myth-wind-turbines-carbon-emissions>